SOME CANADIAN ORNITHOLOGISTS

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UNIVERSITY OF TORONTO

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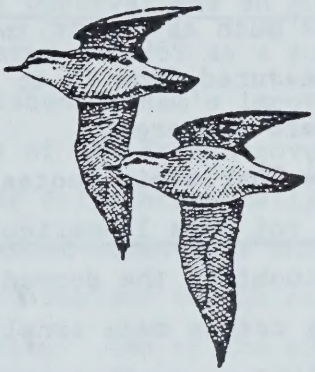

An Introductory Note on the Earliest Observers of Canadian Nature

The North American Indian, living in harmony with nature, could never be called a scientific observer. He reverenced nature; he used its products for food, for clothing and for barter; but to study it as a science was alien to his thinking. Therefore it is to the Europeans who came to explore and later to settle that one must turn to look for anything resembling a scientific approach to nature.

That amazing man, Samuel de Champlain, famous as an explorer, soldier, surveyor and colonizer, was one of Canada's first accurate observers of nature. It was by his own choice that he took time out from his duties to go among the Indians, to hunt and fish with them and to record what he saw. There is a great deal of natural history intermingled with his accounts of the life of the struggling French colony. Especially of interest to present day scientists are his accurate descriptions of birds which are no longer to be found in eastern Canada, but which are still found on the United States seaboard.

Another nearly forgotten naturalist is Nicolas Denys, who, during an uneasy career holding various posts in Acadia under the French regime wrote his Description geographique et historique des costes de l'Amerique Septentrionale, published in Paris in 1672. Fortunately this book was rescued

from oblivion in 1908 when the Champlain Society published it in English under the editorship of a native Acadian, W.F. Ganong, professor of botany at Smith College. Denys, as might be expected, has more to say about sea birds than land birds. His description of the great auk is important, as it foreshadows the doom of the species. He says that it is slaughtered by the fishermen who not only eat its flesh, but make fish oil from it. "There are vessels which have made as much as ten or twelve puncheons of it." When we consider that a puncheon measured from 72 to 120 gallons, we realize that by 1700 the days of the auk were numbered.

Pierre François Xavier de Charlebois quotes from Denys in his Journal d'un voyage fait par ordre du roi dans l'Amerique Septentrionale, 1744. One is also reminded of Denys' account of the doomed auk when one reads that Charlevoix found that whooping cranes made excellent soup!

Baron Armand Louis de Lahonton, another naturalist, came to Canada as a soldier of fortune in 1683. Under Frontenac, who gave him a commission, he achieved some degree of fame in the wars against the English, but later his fortunes were reversed. His subsequent bitterness affected the quality of his book, Nouveaux voyages dans l'Amerique Septentrionale, 1703-04 and, because of exaggerated accounts in it of his achievements, scientists have paid little attention to his very real contributions to natural history. Three short chapters are devoted to birds in "the south countries of Canada" and "the north countries of Canada", and his love and knowledge of nature shine through.

It was not, however, until the Hudson's Bay Company had established permanent trading posts in the north that specimens were collected with any kind of system and sent home for scientists to study. Thus it came about that the northern birds were accurately described and depicted long before any proper ornithological work was done in the more densely populated areas of Canada. James Isham, a Hudson's Bay Company factor, and Alexander Light, who was sent to the Bay "on account of his knowledge of natural history" in 1745, sent the first notes and specimens to England from what is now Manitoba. These were examined by George Edwards who included them in his handsome set of books: A Natural History of Birds, most of which have not been figur'd or describ'd, in 1743-51.

Andrew Graham, a naturalist who came to Hudson's Bay in 1749, has the distinction of sending to Britain the first natural history material from

present day Ontario. It was not until 1951, when Richard Glover unravelled the tale, that Graham's true contributions to Canadian ornithology were realized. Dr. Thomas Hutchins, who served as secretary to the Company after his retirement from work at Hudson's Bay, was in a perfect position to supply naturalists such as Thomas Pennant and John Latham with information about Canadian wildlife, some of it his own, but much of it pilfered from Graham's notebooks. Andrew Graham's Observations on Hudson's Bay, 1767-1791, edited by Glyndwyr Williams, appeared in 1969 as a publication of the Hudson's Bay Record Society, and established Graham's importance once and for all.

Besides these servants of the French government and the Hudson's Bay Company who were naturalists only incidentally, a third group must be mentioned. These were the trained scientists who were sent to North America in the eighteenth century, from England or the continent of Europe, usually with some kind of financial backing. Two of the most interesting worked alone, Mark Catesby and Peter Kalm. Catesby was supported by private subscribers in England, mainly botanists, although fortunately for ornithology his most famous subscriber, Sir Hans Sloane, insisted upon receiving a generous amount of information on fauna. Kalm, a protégé of Linnaeus, was supported by the members of the Royal Swedish Academy, who wished practical information about the possibility of growing North American plants in Sweden. Kalm included a large area of Southern Ontario in his investigations and assiduously described the birds. Catesby came no farther north than Carolina, but his is the greater contribution to ornithology and he is properly called the founder of North American ornithology.

Sir Joseph Banks, a wealthy scientist who had the means to study and travel, transmitted much knowledge to British ornithologists and botanists. He is best known for his travels as scientist on board "The Endeavour", Captain Cook's vessel which went around the world between 1768 and 1771. However before that, in 1766, he had visited Newfoundland and Labrador on board "The Niger", a naval vessel patrolling the fisheries. Much of his information about Canadian birds came from this earlier trip. The contributions of the English soldier and sportsman, George Cartwright, whom Banks met at that time, are also noteworthy. Cartwright spent much time in Labrador, and was a keen observer and recorder.

The great Arctic explorers of the nineteenth century, Sir John Franklin, Sir John Ross and William Beechey included on their expeditions naturalists

whose job was to collect specimens of flora and fauna. The best known of these naturalists, Sir John Richardson, Franklin's friend and companion, added greatly to the knowledge of ornithology of the day.

After Sir John Franklin's mission of 1845 failed to return, numerous excursions were launched to the Canadian Arctic to learn of his fate. Often there were trained scientists aboard, but often interested crew members were assigned to collect flora and fauna for scientists in Britain. These expeditions continued until 1859 when Captain John Rae, himself one of the best amateur naturalists in the north, established the facts of Franklin's death. By this time the more southern areas of the country were settled and a more truly Canadian study of natural history was developing.

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The exhibition begins with a sampling of eighteenth century books produced by British born naturalists and artists who either visited North America themselves, or made use of the scientific discoveries of those who had done so. It proceeds chronologically, ending with the career of James L. (Jim) Baillie, an internationally known ornithologist who was with the Royal Ontario Museum for almost 50 years. It is hoped that the notes describing the books will contribute enough information to provide a skeletal history of Canadian ornithology.

CASE I: THE BEGINNINGS

Edwards, George, 1694-1773. A natural history of birds; most of which have not been figur'd or describ'd, and others very little known from figures very ill design'd. London, Printed for the author at the College of Physicians in Warwick-Lane, 1747. V. 2.

A close friend of Sir Hans Sloane who was responsible for his appointment as librarian of the Royal Society of Physicians, Edwards was one of the most accomplished British naturalists and writers of the eighteenth century.

Fortunately for Canadian ornithological history, his text records fully the source of all the models used in his drawings. A white-tailed eagle from Hudson's Bay, he tells us, occupied the aviary of the doctor in Stepney; a great horned owl also from Hudson's Bay was a pet at the Mourning Bush Tavern in Aldersgate. Seafaring men brought home all sorts of exotic birds, much to the advantage of curious naturalists such as Edwards and Pennant. Edwards acknowledged the assistance of Alexander Light of Hudson's Bay in obtaining specimens for him, and also of Mark Catesby who collected for Sir Hans Sloane. Two later editions of Catesby's Natural History were edited and published by Edwards in 4 volumes. He respected Catesby's work, yet longed to alter his grammar and also to make the large expensive volumes more accessible.

Catesby, Mark, 1679?-1749. The natural history of Carolina, Florida and the Bahama Islands. 2 v. London, the Author, and sold by W. Innys [etc.] 1731-43.

Catesby was an English naturalist who came twice to North America - from 1710 to 1719, and from 1722-1726 - the second time to gather information for his famous Natural History. On his return to England with his drawings and notes, he found that the cost of publishing the ambitious work which he planned would be prohibitive, and he learned the art of etching in order to produce the plates for his book. He executed all but three himself, these being the work of G.D. Ehret, the most famous botanical artist of the time. He coloured the first copies himself, and supervised the tinting of the later copies.

Besides being one of the great colour-plate books of all time, the work is a land-mark in North American ornithology. Witmer Stone has said that it "forms the basis not only of the ornithology of the Southern States, but of the whole of North America."

Pennant, Thomas, 1726-1798. Arctic zoology. Vol. II. Birds. London, Printed by Henry Hughs, 1785.

Considered by some authorities to be the ablest zoologist between John Ray and Charles Darwin, Pennant was acquainted with the most

eminent biologists of the day. His Arctic Zoology is the first major work on zoogeography. In it he shows his tremendous knowledge of science, particularly his advanced ideas on bird migration, shared by only a few learned naturalists of the day, Edwards and Catesby among them. Most people, including the eminent Samuel Johnson and the naturalist, Gilbert White, believed that swallows hibernated beneath the riverbeds.

Much of Pennant's material for his descriptions of North American fauna came from Sir Joseph Banks who loaned him specimens and drawings from his Newfoundland excursion and from Andrew Graham, the Hudson's Bay Company naturalist, (though Pennant attributes much of his help to Thomas Hutchins).

Pennant also corresponded with Samuel Hearne, a famous Hudson's Bay Company factor, explorer and writer who was one of the best naturalists in the north, and with Humphrey Marten, writer of an unpublished manuscript on Arctic birds in the Royal Society Library.

The illustrations throughout are by Peter Paillou and Sydney Parkinson.

Pennant, now remembered largely as the friend and correspondent of Gilbert White, was a prime mover in the study of Canadian ornithology.

Richardson, Sir John, 1787-1865. Fauna boreali-americana; or, The zoology of the northern parts of British America, containing descriptions of the objects of natural history collected on late northern land expeditions, under the command of Captain Sir John Franklin, R.N. By John Richardson ... assisted by William Swainson ... and ... William Kirby. London, J. Murray, 1829-31.

Richardson, an outstanding Scottish surgeon and naturalist, accompanied Sir John Franklin on two polar expeditions, 1819-22 and 1825-27. He wrote the Fauna boreali-americana, a government publication of an unusual lushness, while working full-time as chief medical officer at the Melville hospital in Chatham. Richardson described the quadrupeds and assisted Swainson with the birds, while Kirby was responsible for the insects. Swainson was unequalled as a zoological draughtsman at the time, a great artist as well as a scientist.

Richardson was one of several first-rate scientists of the day who was taken in by Thomas Hutchins, the Hudson's Bay employee who "borrowed" from Andrew Graham's work. Undeniably, however, Richardson is one of the most valuable contributors to Canadian ornithology. Unlike Edwards, Latham and Pennant, he had actually endured the rigours of the northern climate, and had seen the birds at first hand.

Thompson, David, 1770-1857. David Thompson's narrative of his explorations in Western America, 1782-1812, edited by J.B. Tyrrell. Toronto, the Champlain Society, 1916.

---------- [Narrative of his exploration in Western America, 1784-1812. 18--] Manuscript.

David Thompson came to Canada at the age of 14 as an apprentice clerk in the Hudson's Bay Company. He began at once to keep records for the Company; but it was not until he was apprenticed as a surveyor to Philip Turnor that he began to keep his own journals. His journals recorded his transactions as a fur-trader, and, as might be expected from a man who was to become one of the world's greatest land surveyors, his astronomical calculations and his daily meteorological notes as well. The value of his descriptions of geology, vegetation and animal life was not realized, however, until relatively recently. He was an acute observer of nature and his descriptions of birds are both accurate and poetic.

He notes minutely the differences between the willow-grouse and the rock-grouse, for example:

> "... the willow-grouse has a red stripe around the upper eyelid, is a finer bird than the rock-grouse, and one-fifth larger. They are both well-feathered to the very nails; all their feathers are double, lie close to each other, two in one quill or socket and appear as one feather."

Then there is his poetic description of the captive grouse, which is marked in the exhibition:

> "I have often taken them from under the net, and provoked them all I could without injuring them, but all was submissive meekness; rough beings as we were, sometimes of an evening we could not help inquiring why such an angelic bird should be doomed to be the suffering prey of every carnivorous animal, the ways of Providence are unknown to us."

CASE II: ONTARIO'S FIRST NATURALIST

CHARLES FOTHERGILL, 1782-1840, was the first serious naturalist to settle in what is now Ontario.

Coming to British North America in 1816, Fothergill spent the rest of his life in Upper Canada, dividing his time between Port Hope, Pickering, York (Toronto) and Rice Lake. In the course of his rather frenetic career in this province he was post master, magistrate, member of parliament, King's Printer, land speculator and newspaper publisher; but his true bent was that of artist and naturalist, and whenever time permitted from his struggle to support a growing family, he spent long hours in these pursuits.

Before coming to Canada, Fothergill travelled on foot and on horseback over much of the British Isles, making copious notes on areas where natural history had not previously been seriously pursued. For instance, two of his manuscript volumes are devoted to "A voyage to the Northern Isles ... the Orkneys, Shetland, Fula and Fair Isle." He corresponded with several naturalists including Thomas Bewick, and had begun a revision of Bewick's A History of British birds, of which the Library has an interleaved copy containing Fothergill's notes. At the age of seventeen he had published Ornithologica Britannica, a list of 301 species of British birds, and in 1813 a volume entitled An Essay on the Philosophy, Study and Use of Natural History. His projected work, never completed, entitled Memoirs and Illustrations of the Natural History of the British Empire, was intended to contain his unpublished British natural history material, as well as what he amassed while living in Upper Canada. An able artist, he intended to illustrate the work with his own drawings, some of which he had engraved by craftsmen of the calibre of Thomas Bewick, John Thurston, Samuel Howett and William Hooker. Unfortunately very few of his paintings are known to have survived, many having been sent to his sister Elizabeth in Yorkshire at the time of his death. The Canadiana Gallery of the Royal Ontario Museum owns some of his landscapes, but most of his excellent bird studies have vanished.

With Dr. William Rees and Dr. William (Tiger) Dunlop, in 1831 he started the Literary and Philosophical Society of Upper Canada "to promote the study of natural history", and to provide a museum and library on literary and philosophical matters. They began to petition for the museum in 1830, and in 1836 the Lieutenant-Governor, Sir Francis Bond Head, granted the land for it. It seems probable that the project foundered partly from lack of public interest and partly because of Fothergill's financial problems and ultimate failing health. He died penniless in 1840; and as if Fate were determined to pursue him even after death, a few months thereafter the building which housed his collections of mounted birds and animals, destined for the museum, went up in flames.

If Fothergill was a failure in the eyes of the world, surely he was a brilliant one. Fifty years later a more enlightened citizenry began to fight for the museum which he had tried so hard to found in Toronto; and 120 years later, conservation-minded people the world over began to show concern for the various endangered species of which he had written in the 1820's and 30's.

The Library is very fortunate in owning the bulk of Charles Fothergill's manuscripts, largely owing to the generosity of his descendants, particularly Mr. George Fothergill and Mr. G.A. McGillivray. The late Jim Baillie had made a study of this fascinating naturalist and had located many volumes of the manuscripts now in the Library courtesy of the Royal Ontario Museum. Much is owed to his dedicated interest.

CASES III and IV: FROM VICTORIAN TIMES

CASE III

Gosse, Philip Henry, 1810-1888. The Canadian naturalist; a series of conversations on the natural history of Lower Canada. London, John van Voorst, 1840.

The English author, Philip Henry Gosse, lived from 1835 to 1838 on a farm at Compton in the Eastern Townships of Quebec. While he was a dismal failure as a farmer, it was out of his experiences there that he wrote The Canadian Naturalist, a charming book illustrated with wood-cuts from his own drawings. Upon his return to England, he went on to write many more books, especially in the realm of marine biology and became a very well-known naturalist.

It is somewhat prophetic that his first published book should have taken the form of a conversation between a father and son.

Le Moine, Sir James MacPherson, 1825-1912. Ornithologie du Canada, d'après la nomenclature de Baird. 2d ed. Québec, J.T. Brousseau, 1861.

----------. The birds of Canada; a popular lecture, delivered before the Literary and Historical Society of Quebec, April 25, 1866 ... Quebec, Printed by Middleton and Dawson, at the Gazette General Printing Establishment, 1866.

Sir James Le Moine was a prolific author who wrote in both English and French. His Ornithologie du Canada was his first publication, his most famous being a series of miscellanies entitled Maple Leaves, 1863-1906. A well-regarded ornithologist, Sir James was one of the original honorary vice-presidents of the Audubon Society, and became an associate member of the American Ornithologists' Union in 1883.

Hincks, William, 1794-1871. Catalogue of birds known to inhabit Western Canada, systematically arranged according to the method adopted in the Museum of the University of Toronto. [Toronto, 1867]

A distinguished Presbyterian clergyman and former professor of Natural Philosophy at Manchester College, York, England, and at Queen's College, Cork, the Reverend William Hincks was appointed to the newly created chair of Natural History at University College, Toronto, in 1853.

His Catalogue of birds known to inhabit Western Canada (present day Ontario) listed 271 species, and was intended to accompany a collection of birds sent that year to the Paris Exhibition. He states that "some may be surprised that the arrangement and nomen-

clature are not those of the well-known and useful catalogue of birds of North America by Dr. Baird of the Smithsonian Institute ... we have preferred following the method in use among ourselves ... in the principal museum of this country, that of the University of Toronto."

Well known for his papers on birds, flowers and mammals which were published in the Canadian Journal, in the Reports of the British Association for the Advancement of Science and in the Reports of the Linnean Society, Dr. Hincks seems to have been quite adequately qualified for his post at the University of Toronto. Unfortunately, he is remembered to-day as the man who was awarded the job for which Thomas Huxley was an unsuccessful applicant.

King, William Ross, 1822-1890. The sportsman and naturalist in Canada, or notes on the natural history of the game, game birds and fish of that country ... London, Hurst and Blackett, 1866.

This informative book is the result of a three year sojourn in Canada. As is so often the case with hunters, King had a true love for nature. The four chapters on birds are of considerable interest to-day, particularly his first-hand accounts of such phenomena as the spring migration of the passenger pigeons near Niagara. He reckons the duration of the flight to have been fourteen hours, and the column to have been one mile wide and 300 miles in length. Major King had done considerable reading of American natural history, and used the nomenclature of Baird.

Ross, Alexander Milton, 1832-1897. The birds of Canada. 2nd ed. Toronto, Rowsell and Hutchison, 1872.

This little book is a charming period piece, and not just because of its delightful Victorian format. A statement in the preface to this edition informs us that a new edition was required, not only because the first edition sold out within weeks of its appearance, but because a catalogue of the birds of the new provinces of Manitoba and British Columbia was needed. This catalogue appears as an appendix to the book.

While Ross devoted much of his time and energy to the study of Canadian natural history, he is best remembered for his part in the anti-slavery campaign in the U.S., and his friendship with John Brown.

Vennor, Henry George, 1841-1884. Our birds of prey. Montreal, Dawson Brothers, 1876.

Born and educated in Montreal, Henry Vennor was on the staff of the Geological Survey of Canada from 1865 to 1880, when he had "unusual facilities for field observation." Besides publishing

Our birds of prey in 1876, Mr. Vennor published a number of almanacs in which he predicted the weather with some success.

The volume displayed, a genuine piece of Victoriana, is illustrated with photographs by William Notman who, the author informs us, "entered heart and soul into the undertaking ... and has spared neither material nor labour in order to render the plates satisfactory and truthful to nature." He assures us, somewhat unnecessarily, that this is "not a mere exhibition of pretty photographs," but a work of practical utility.

Chamberlain, Montague, 1844-1924. A catalogue of Canadian birds with notes on the distribution of the species. St. John, N.B., J. & A. McMillan, 1887.

----------. Some Canadian birds. A brief account of some of the common birds of Eastern Canada. Toronto, Copp, Clark, 1895.

Montague Chamberlain was born in New Brunswick and spent much of his life there. One of the earliest native born Canadian ornithologists, he published mainly on Canadian birds. He was one of the founders of the American Ornithologists' Union besides being a member of the Nuttall Club.

His interests included anthropology of the North American Indians. Besides writing on the subject, he built up a library of 1000 items for the use of the Indians in Old Town, Maine.

Raine, Walter, 1861-1934. Bird-nesting in North - West Canada. Toronto, Printed by Hunter, Rose, 1892.

A native of England, Walter Raine moved to Canada in his youth, settling in Toronto. He became an authority on Canadian birds, making several trips to western Canada to collect birds' eggs. His collection went to the Royal Ontario Museum on his death.

Unfortunately during the 1890's some of his "discoveries" were questioned and caused controversies among experts in the field.

Royal Canadian Institute, Toronto. Biological Section. Ornithological Sub-section. Minute-book, 1890-93.

Dr. William Brodie, one of the great catalysts in the course of Canadian natural history, came to Canada from Scotland around 1838. Interested in all living things from the time he was a small child, he was able, when established in life, to impart his enthusiasm and knowledge to others. In 1878 he founded the Natural History Society of Toronto, later the Biological section of the Canadian Institute. An ornithological sub-section of this group was founded and its minute-book is shown in the current exhibition.

Dr. Brodie was able to give up his profession of dentist and to become Ontario's first provincial biologist in 1903.

It is impossible to estimate the number of people whose lives were dramatically changed under the kindly influence of this great man. Typical "graduates" were J.H. Fleming and Ernest Thompson Seton, themselves destined to influence many lives in turn, Fleming as the quiet scholar of Toronto, and Seton as the rather flamboyant world renowned author.

CASE IV

Seton, Ernest Thompson, 1860-1946. The birds of Manitoba. Washington, Government Printing Office, 1891.

Probably the best known of our Canadian naturalists, Ernest Evan Thompson was born in Durham, England. He came to Canada as a child and lived on a farm near Lindsay, later moving to Toronto. He attended the Ontario College of Art and studied art in Paris, London and New York.

His first official job was that of naturalist to the government of Manitoba, and The Birds of Manitoba was a direct product of that experience. By that time, his remarkable gift for writing animal stories with appealing illustrations had become evident, and a stream of attractive volumes soon began to flow from his pen. Wild animals I have known, 1898, brought him world renown and is one of the best-sellers of all time. It has never been out of print. While this kind of fame has made him appear to be a mere popular writer, he was also a scientist and a dedicated conservationist. The underlying message of even his most sentimental animal stories is conservation.

A romantic streak in his make-up made him introduce the name "Seton" into his patronym, and he finally took it over as his surname. (He came of a Jacobite family by that name, which had fled from Scotland "after the '45"). The resulting confusion is evident on the title pages of his books and in the initials with which he signed his illustrations.

The Woodcraft League in the United States was founded by Seton to interest young people in nature study and camping, and was in some ways a precursor of the Boy Scout Association.

A park in the Don Valley commemorates his name in the Toronto area - very appropriately, as he had known the Don Valley well when he played there as a boy almost exactly 100 years ago. He writes of it affectionately in his autobiography, and derived inspiration for

some of his animal "characters" from its denizens.

More material on this gifted artist is in one of the corner cabinets on the first floor.

Wintle, Ernest Douglas, 1852-1917. The birds of Montreal; birds observed in the vicinity of Montreal, Province of Quebec, Dominion of Canada. Montreal, W. Drysdale, 1896.

Born in Gloucester, England, Ernest Wintle spent the last 40 years of his life in Canada. Always interested in nature study and especially in birds, he published several articles on ornithology in the Auk and other journals. After nearly 20 years of study he published his Birds of Montreal in 1896, which J.H. Fleming said at the time of Wintle's death was "still the only reliable guide to the birds of that region". He was a member of the Natural History Society of Montreal and an associate member of the American Ornithologists' Union.

Dionne, Charles Eusèbe, 1845-1925. Les oiseaux de la province de Québec. Québec, Dussault et Proulx, 1906.

Charles E. Dionne was born in Kamouraska, Quebec, the brilliant son of a poor farmer. Almost completely self-educated until the age of 22, he started to study natural history at night classes. From these beginnings he rose to become Curator of the museum of Laval University, in 1882. The museum, which was in a state of disorder when he took over, was soon organized and its collections expanded. M. Dionne was able to continue his own studies and to begin publishing in learned journals.

Charles Dionne eventually published five volumes, mainly on birds, and was recognized as an authority all over the continent. However his main contribution may be that of encouraging the study of natural history in his native province.

McIlwraith, Thomas, 1824-1903. The birds of Ontario; being a concise account of every species of bird known to have been found in Ontario ... 2nd ed. Toronto, William Briggs, 1894.

Thomas McIlwraith, born in Scotland, settled in Hamilton, Canada West, in 1853. While he became a successful business man and took part in civic affairs, he is remembered to-day as an ornithologist. In 1860 he published a list of Hamilton birds "all observed within six miles of the city limits." This was revised and republished. In 1886 his Birds of Ontario was published, listing 302 species. The volume shown here, the second edition, enlarges the list to 317 species.

Handsomely illustrated with very fine wood engravings after the style of Thomas Bewick, the book is open at an illustration by Ernest Thompson Seton. Other illustrations are signed by the initials E.E.S.T. (Ernest Evan Seton Thompson) and various other combinations of Seton's name. Others are unsigned. It seems probable that all the illustrations are his. Following the nomenclature of the check-list of the American Ornithologists' Union, the book was a model for the period.

Like most naturalists of the day, Mr. McIlwraith had a large collection of scientific specimens. The more spectacular of them were given to the Royal Ontario Museum by his grandson, Professor T.F. McIlwraith. In London, Ont., the McIlwraith Ornithological Club perpetuates his name.

McIlwraith, Kennedy C. What I know about birds and how I come to know it. Hamilton, 1882.

As soon as any Canadian birder sees that the writer of these notes gives "Cairnbrae", Hamilton, as his address, he knows where a great deal of the young man's knowledge of birds comes from. Son of the famous Thomas McIlwraith, Kennedy describes in this notebook the jaunts which he made as a boy with his father into the countryside surrounding Hamilton, looking for birds.

Interestingly, the last half of the note-book seems to have been used by Thomas McIlwraith for similar observations, quite often made in the company of "K."

White, George Rivers, 1856-1927 [Bird observation note-books] 1912-1927.

George White spent all his life in Ottawa, an employee of the federal government. As a child he roamed the surrounding forests and fields when the passenger pigeon still nested in the trees of the present day Rockcliffe Park. He kept meticulous records of all his observations. At the time of his death, he had the longest known record of continuous bird migration reports to the Biological Survey of Washington, D.C.

Macoun, John, 1831-1920. Catalogue of Canadian birds. Ottawa, Printed by S.E. Dawson, Printer to the Queen, 1900-1904.

Published by the Geological Survey of Canada, Macoun's catalogue was begun in 1900 and completed in 1904. A true pioneering work, it made use of extant literature, museum collections, and especially specimens collected by Macoun and his colleagues. Many of the notes were furnished by contemporary bird students across Canada. The nesting records in his book were collected in the same way.

A dedicated scientist, Macoun was the first biologist at the National Museum of Canada.

The natural history of the Toronto region, edited by J.H. Faull. Toronto, the Royal Canadian Institute, 1913.

This volume was prepared by the Canadian Institute for the members of the Twelfth Geological Congress. The chapters are written by specialists in the various fields. Chapter XVI on birds is appropriately the work of James Henry Fleming, an acknowledged expert.

J.H. Fleming, as he was always known, was born in Toronto in 1872. His father was a scientific gardener who wrote articles on horticulture. His seed-growing business had been established in 1836 on three acres at Yonge and Elm Streets. Here his son, J.H., grew up taking an early scientific interest in nature. His study of birds is known to have begun when he was 12 years old, and the idea of building a collection of birds' nests and eggs was already under way when he was 14. By the age of 16 he was a member of the Canadian Institute and fell under the influence of Dr. Brodie.

At this time, interest in natural history was declining in the area. The little Provincial Museum, housed in the Normal School in Toronto, was losing ground because of lack of popular support. J.H. Fleming, very reserved by nature, was incapable of heading a public drive for funds. Instead he created a one-man Museum. He had the knowledge, temperament and fortunately, the means. His collection grew and prospered; his library became one of the great private ornithological libraries of the continent; he could travel, study and keep up contacts with scientific organizations. Despite his reticence, he was friendly and hospitable to kindred spirits. When he died in 1940, his enormous collections went to the Royal Ontario Museum where he had many contacts and friends. His scientific specimens and his journals were spectacular. His library, including the pamphlets, numbered over 10,000 items.

The Fisher Library is very fortunate in owning several rare volumes which were generously donated by the R.O.M. They are exhibited in the free standing case on this floor.

CASE V: THE MODERN CANADIAN BIRD BOOK

With the appearance of P.A. Taverner's Birds of Canada in 1934 Canadian ornithology came into its own. A lot of groundwork had been done by previous naturalists: the great American ornithologists, Elliott Coues, Frank M. Chapman, Florence M. Bailey and A.C. Bent, to name only a few, and the Canadian pioneers whose works are represented in the two preceding cases. Mr. Taverner himself had already published Birds of Western Canada in 1919, and Birds of Eastern Canada in 1926.

The significance of the 1934 volume lies in the fact that Canadians now had one volume, and a painstakingly scientific one at that, which covered their entire country. The classification and nomenclature are those of the A.O.U. Check-list of North American birds, 4th ed., 1931, to keep in step with the systems used all over the world. In a typical statement in his introduction, Taverner says, "the objects of scientific nomenclature are exactitude, universality, and permanence."

The coloured plates, the work of Allan Brooks and F.C. Hennessy, many of which were used in Taverner's earlier volumes, led the way for the beautifully illustrated volumes which fill this case.

It is not possible to comment on all the modern books which are displayed. For one thing, they are representative volumes, and to single out any for attention would mean neglecting the many in the Baillie Collection which cannot be shown for lack of space.

The work of one outstanding Torontonian should be noted, however. Terence Shortt is an internationally known artist, and an excellent ornithologist, who has been active in the field for over 40 years. He has travelled widely and painted or sketched birds in many countries, as well as those native to Canada. The books on display in this case provide some indication of his achievement as both artist and scientist.

CASE VI: THE COFFEE-TABLE BOOK

The work of the brilliant Canadian artist, J. Fenwick Lansdowne is so well-known as to need no introduction here. He is recognized all over the world as an outstanding artist. It is worth mentioning, however, that with his latest volume on the birds of Canada, Birds of the West Coast, Mr. Lansdowne has written the accompanying text himself.

Glen Loates, slightly Fenwick Lansdowne's junior, is another such figure in the art world. His animal studies are as well known as his bird paintings.

CASES VII and VIII: JIM BAILLIE AND THE BAILLIE COLLECTION

Jim Baillie always said that his career in ornithology began with a field trip led by his Sunday School teacher, R.G. Dingman, in 1920. The first page of volume one of his bird watching journals tells the story very succinctly:

> March 28, 1920. In the morning went up to Moore Park with R.G. Dingman & Harry Doidge on my first bird hike. Knew only the most common ones as crow, robin, gull, etc.

At the end of the day he reports:

> First list showed that we had seen 21 kinds in about 2 hours.

He was never to look back. At that point, aged sixteen years, he was a delivery boy for a wholesale grocery business. Two years later he had become registrar of the Royal Ontario Museum's Ornithology Department and the rest is history.

Various well qualified people have written about Jim Baillie. The main facts of his subsequent career are well known: his devotion to the Museum, his integrity as a birder, his generosity to young people, his availability as a speaker and lecturer--he taught ornithology as a University Extension course for some years, besides giving addresses to scores of interested groups. It is hoped that these aspects of his life, as well as the highly deserved honours which came to him in his later years, are evident in this exhibition. Another aspect of his life, however, provides the focus for the present display. Jim Baillie left a legacy about which few people know--the James L. Baillie Collection of books and manuscripts in the Thomas Fisher Rare Book Library.

In a tribute written after Baillie's death, Dr. C.H.D. Clarke refers to his having a "rare sense of the museum collection as a huge collection of documents that would never cease yielding new information". This scholarly approach led Baillie to preserve and organize his own records and research material for possible use by others in the future. Of first importance in his collection are his bird observation journals--models of their kind, fifty years of accurate observations, painstakingly recorded. Already these volumes have been the subject of long term scientific research by other naturalists. It should be mentioned here that Baillie, in failing health for the last few years of his life, had not written up the final six years of his journals. That work is now being done by Gerry Bennett, a close friend of twenty-five years standing. One morning a week, he performs the feat of literally turning himself into Jim Baillie and transcribing those scribbled, highly idiosyncratic notes into orderly journal entries---detective work of the highest order, which will complete and enrich the life-long record for the benefit of future ornithologists. Baillie's personal diaries are also in the collection, awaiting the perusal of a future biographer.

One of the most amazing accumulations in Baillie's research papers is a vast biographical dictionary of naturalists, almost eight linear feet of shelf space, consisting of files on naturalists from all over the world. The file for an individual may be as brief as a hastily torn out obituary or book review, but more usually it

includes photos, numerous clippings, and a card in Baillie's meticulous hand which records every publication together with the exact date and number of the obscure periodical where each appeared.

Baillie's correspondence files, twelve feet in extent, maintained in the same kind of order, in many ways complement the dictionary of biography. Naturalists from all over North America knew of Jim Baillie and usually got round to writing to him. If a correspondent was not acquainted with him when the first letters were exchanged, he soon made a point of meeting him. Baillie's correspondence with P.A. Taverner shows a typical pattern. Baillie, as a young man, writes a tentative inquiry to the established authority on Canadian birds. Taverner is impressed by the depth of knowledge and sincerity of the promising scientist. Soon they are exchanging letters frequently and meeting when possible. Taverner, like many an expert after him, ends up by consulting Baillie who has specialized knowledge in some areas which Taverner himself lacks.

Other files kept by Baillie are his regional files on birds, and his notes on species. Both are extensive and useful to the specialist.

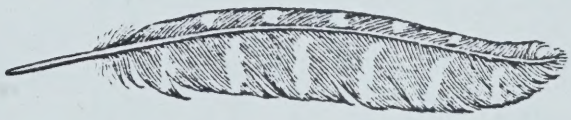
In addition to maintaining all these files Baillie had a number of special projects which he hoped to complete "some day". One such was his projected biography of Charles Fothergill, Ontario's first great naturalist. He kept coming across traces of this elusive figure, and, finally, as more and more pieces of the puzzle were revealed, he made it part of his life's work to track down Fothergill's descendants and to locate as many of his manuscripts as possible. As a result of his perseverance nearly all these manuscripts are now in the Thomas Fisher Rare Book Library. Baillie completed a draft for a biography of Fothergill and made himself the authority on the subject. For many years his article in the Canadian Historical Review was the only existing account of Fothergill's life.

Another project dear to Baillie's heart was his Review of Natural History in Ontario. This too is an almost complete manuscript, orderly, factual, and comprehensive. No naturalist, however obscure, escaped his net.

That these projects were not completed and published is in one way a tragedy, but one must consider that Baillie would have had to become a partial recluse in order to concentrate on finishing them. His audience in the world of natural history would have lost, at least temporarily, its best birder, its most popular speaker, and its most prolific writer. During his professional career Baillie produced over three hundred articles for journals as well as weekly columns on birds for the Toronto Evening Telegram for twenty-eight years, and numerous free-lance newspaper articles.

The Baillie book collection which has been deposited in the Fisher Rare Book Library contains over nine hundred volumes. It is clearly an ornithologist's working library with the well thumbed copies of the standard works one might expect. Baillie did not collect coffee table books, but these have been added to the collection that bears his name as part of the Fisher Library's policy of maintaining and enriching where possible the collections in its keeping. Baillie's personal library did contain, however, many rare and valuable books. While Baillie began collecting before book prices rose to their present dizzy heights, the purchase of many of these rarities must have meant a considerable financial sacrifice on his part. The works of all Canada's early ornithologists are represented, often in all their various editions. Only a dedicated collector could have assembled such a collection and even a wealthy bibliophile would have difficulty in putting together a similar library today.

Baillie also created a large and impressive American ornithological collection, as well as an extensive collection on North American flora and fauna. This side of his library lies outside the scope of the present exhibition but should not be overlooked by researchers in natural history. Finally, mention must be made of Baillie's outstanding periodical collection which ranges from long established and well known journals, like the Auk and Wilson's Bulletin to mimeographed news-sheets currently issued by Ontario field naturalists' groups.



The James L. Baillie Collection has provided both the inspiration and the source material for this exhibition. All the books and pictures, unless otherwise indicated, are from the Collection, and the accompanying notes are largely based on Jim Baillie's files. I would like to thank Gerry Bennett for his encouragement, and Florence Baillie Wilson for lending her father's binoculars.

Rachel Grover
12.3.81